

AMENDMENTS TO THE CLAIMS

Please cancel all pending claims, i.e., claims 1-34, without prejudice or disclaimer of the subject matter recited therein and please add new claims 35-82 as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-34 (Canceled)

35. (New) A method for creating a fibrous suspension for producing a tissue web or a hygiene web, comprising:

directly loading fibers contained in a fibrous suspension with a filler through a chemical precipitation reaction in an online process in a tissue material preparation line.

36. (New) The method of claim 35, wherein crystalline precipitation product particles are produced in the online process.

37. (New) The method of claim 36, wherein the crystalline precipitation product particles comprise calcium carbonate.

38. (New) The method of claim 35, wherein the loading of the fibers comprises adding at least one of calcium oxide and calcium hydroxide; and the chemical precipitation reaction is initiated through carbon dioxide or a gas containing carbon dioxide.

39. (New) The method of claim 38, wherein crystalline precipitation product particles are produced without the introduction of mixing energy.

40. (New) The method of claim 35, further comprising feeding the fibrous suspension to a treatment unit comprising at least one of a fluffer, refiner, and disperger.

41. (New) The method of claim 40, wherein the loading of the fibers occurs before feeding the fibrous suspension to the treatment unit.

42. (New) The method of claim 40, wherein the loading of the fibers occurs after feeding the fibrous suspension to the treatment unit.

43. (New) The method of claim 40, wherein the treatment unit is usable as a reactor for the chemical precipitation reaction.

44. (New) The method of claim 38, wherein calcium hydroxide in liquid form is added to the fibrous suspension.

45. (New) The method of claim 38, wherein calcium hydroxide in dry form is added to the fibrous suspension.

46. (New) The method of claim 40, wherein the fibrous suspension has a stock consistency in the range of approximately 5% to approximately 60% during feeding.

47. (New) The method of claim 46, further comprising adding calcium hydroxide to the suspension before the feeding of the fibrous suspension to the treatment unit.

48. (New) The method of claim 47, wherein the fibrous suspension has a stock consistency in the range of approximately 15% to approximately 35% during feeding.

49. (New) The method of claim 38, wherein the carbon dioxide or the gas containing carbon dioxide is added at a temperature in the range of approximately -15°C to approximately 120°C.

50. (New) The method of claim 48, wherein the carbon dioxide or the gas containing carbon dioxide is added at a temperature in the range of approximately 20°C to approximately 90°C.

51. (New) The method of claim 35, wherein crystalline precipitation product particles with a rhombohedral form are produced in the online process.

52. (New) The method of claim 35, wherein crystalline precipitation product particles with a scalenohedral form are produced in the online process.

53. (New) The method of claim 35, wherein spherical crystalline precipitation product particles are produced in the online process.

54. (New) The method of claim 40, wherein the treatment unit comprises a disperger with two plates disposed opposite to one another and rotating relative to one another.

55. (New) The method of claim 53, wherein the two plates comprise a rotor and stator.

56. (New) The method of claim 54, wherein crystalline precipitation product particles are produced in the online process; and

the dimensions of the crystalline precipitation product particles are influenced in the treatment unit.

57. (New) The method of claim 36, wherein maximum dimensions of the crystalline precipitation product particles are in the range of approximately 0.05 μm to approximately 5 μm .

58. (New) The method of claim 56, wherein the maximum dimensions of the crystalline precipitation product particles are in the range of approximately 0.3 μm to approximately 2.5 μm .

59. (New) The method of claim 35, wherein crystalline precipitation product particles with a rhombohedral form are produced in the online process, said particles having an edge length of approximately 0.05 μm to approximately 2 μm .

60. (New) The method of claim 35, wherein crystalline precipitation product particles with a scalenohedral form are produced in the online process, said particles having an edge length of approximately 0.05 μm to approximately 2 μm and a diameter of approximately 0.01 μm to approximately 0.5 μm .

61. (New) The method of claim 53, further comprising:
diluting the fibrous suspension with water in a radially outer area of the treatment unit.

62. (New) The method of claim 40, wherein the fibrous suspension guided through the treatment unit has a stock consistency of approximately 0.1% to approximately 50%.

63. (New) The method of claim 61, wherein the fibrous suspension guided through the treatment unit has a stock consistency of approximately 5% to approximately 35%.

64. (New) The method of claim 35, further comprising:
maintaining a substantially constant supply of carbon dioxide or a gas containing carbon dioxide into the fibrous suspension.

65. (New) The method of claim 35, further comprising:
adding carbon dioxide or a gas containing carbon dioxide to the fibrous suspension at a pressure of approximately 0.1 bar to approximately 6 bar.

66. (New) The method of claim 64, further comprising:
adding the carbon dioxide or the gas containing carbon dioxide at a pressure of approximately 0.5 bar to approximately 3 bar.

67. (New) The method of claim 35, further comprising:
regulating or controlling a pH value of the fibrous suspension by regulating or controlling a supply of carbon dioxide, such that substantially all base materials of the chemical precipitation reaction are converted to reaction products.

68. (New) The method of claim 66, further comprising:
establishing the pH value in a range of approximately 6 to approximately 10.

69. (New) The method of claim 67, further comprising:
establishing the pH value in a range of approximately 7 to approximately 8.5.

70. (New) The method of claim 66, further comprising:
introducing energy for the chemical precipitation reaction in a range of approximately 0.3 kWh/t to approximately 8 kWh/t.

71. (New) The method of claim 69, wherein the energy is in a range of approximately 0.5 kWh/t to approximately 4 kWh/t.

72. (New) The method of claim 35, further comprising:
adding dilution water to the fibrous suspension to obtain a diluted fibrous suspension with a stock consistency of approximately 0.1% to approximately 16%.

73. (New) The method of claim 71, wherein the diluted fibrous suspension has a stock consistency of approximately 2% to approximately 6%.

74. (New) The method of claim 53, wherein a radially outer edge portion of a rotating portion of the treatment unit has a circumferential speed of approximately 20 m/s to approximately 100 m/s.

75. (New) The method of claim 73, wherein the circumferential speed is approximately 40 m/s to approximately 60 m/s.

76. (New) The method of claim 53, wherein the two plates are separated by a gap of approximately 0.5 mm to approximately 100 mm.

77. (New) The method of claim 75, wherein the gap is approximately 25 mm to approximately 75 mm.

78. (New) The method of claim 53, wherein the two plates have a diameter of approximately 0.5 m to approximately 2 m.

79. (New) The method of claim 35, wherein the chemical precipitation reaction has a reaction time of approximately 0.01 minute to approximately 1 minute.

80. (New) The method of claim 35, wherein the chemical precipitation reaction has a reaction time of approximately 0.1 seconds to approximately 10 seconds.

81. (New) The method of claim 37, further comprising:
washing out free calcium carbonate not deposited on or in the fibers.

82. (New) A tissue product made from the fibrous suspension according to claim 35.